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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/518,648	12/02/2005	Mansour Ali Al-Sugair	027900-042	6755

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EXAMINER

DRODGE, JOSEPH W

ART UNIT

PAPER NUMBER

1797

NOTIFICATION DATE

DELIVERY MODE

06/02/2009

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ADIPFDD@bipc.com

**Office Action Summary****Application No.**

10/518,648

**Applicant(s)**

AL-SUGAIR ET AL.

**Examiner**

Joseph W. Drodge

**Art Unit**

1797

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 14 April 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-15 and 17-78 is/are pending in the application.
- 4a) Of the above claim(s) 30-32, 37-59 and 65-77 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15, 17-26, 33-36, 60, 61 and 64 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 30-32, 37-59 and 65-77 are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-848)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

Applicant's election with traverse of Group I, claims 1-15 and 60 in the reply filed on April 14, 2009 is acknowledged. The traversal is on the ground(s) that the searches for the Groups II through IV overlap and extend into the diverse areas of searching. This is not found persuasive because the groups are drawn to distinct, separate combinations of features, with largely non-overlapping searches. The groups do not contain any single or group of distinctive features. However, the arguments are persuasive in part regarding claims in Group II, and claims 17-29,33-36,60-64 and 74 have been rejoined, since it is recognized that searches for Groups I and II do largely overlap and common prior art is pertinent to claims in both respective groupings.

The requirement is still deemed proper and is therefore made FINAL.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1,4,9,10,12,15,17,19,27,28,33,35,60-62 and 64 are rejected under 35 U.S.C. 102(b) as being anticipated by Anderson patent 5,306,351.

For independent claims 1 and 60 and other independent claims, Anderson discloses method and apparatus for cleaning of a tank or vessel (column 1, line 23 and column 5, line 54) contaminated with a hydrocarbon-containing waste material sludge (column 3, line 67 etc.) , by contacting the sludge with a conduit while drawing a vacuum, so as to extract and collect the sludge (column 5, line 62-column 6, line 8). For claim 10, "means for generating" and "means for collecting" are deemed 112, 6th paragraph limitations and are met by the pump (column 5,

lines 42-44) and collecting vessel (column 3, lines 31-32 and bed of employed vacuum truck/columns 5-6) of Anderson. For claims 17 and 33, the sludge material is treated by heating (column 5, lines 59-61) and solvent (column 5, lines 42-44/dispersion solution) [as also required by claims 4 and 19] to render it for extraction, with the hydrocarbons somewhat extracted from remainder of the material [as also required by claim 64]. For claims 27-29 and 61-64, the extracting and contacting is disclosed in the examples as optionally being conducting in at least 2 stages with steps of adding solvent and heating alternately applied as different stages of cleanup (column 5, lines 54-62... column 6, lines 34-42).

The following is disclosed by Anderson for various dependent claims: the sludge containing heavy or crude oil for claim 9; the apparatus being with a truck, hence portable for claim 15; the solvent containing water for claim 35; the extracting being in at least 2 stages with steps of adding solvent and heating for different stages for claims 27,28 61.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 2,3,11,20 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson patent 5,306,351 in view of Ramo patent 2,917,076.

Claims 2,3 and 11 differ in requiring that the suction by pumping involves pneumatic pumping. Ramo teaches such form of pumping and it's being associated with moving viscous semi-liquid substances including oil and asphalt with refinery processes (column 1, lines 20-30 with column 2, lines 18-21) . It would have been obvious to have employed such pneumatic pumping in Anderson, since these generate the necessary power to consistently maintain vacuum with viscous or heavy liquids and semi-liquids (column 1, lines 31-33).

The hydrocarbons are required to be comprised of asphalt, or bitumen (such as contained in refinery oil waste) for clms 20,34. This is taught at column 2, lines 18-21 of Ramo. Such materials are obviously a common ingredient necessarily present in hydrocarbons being present in refinery process waste.

Claims 5,6 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson patent 5,306,351 in view of Von Krosigk et al patent 6,593,279. These claims require the solvent comprising citrus oil, although Anderson already discloses such natural ingredients as citrus pectin in contacting mixture (column 4, lines 7-9). Von Krosigk teaches citrus oil comprised in a solvent mixture to extract hydrocarbons from refinery and oil-processing waste (column 4, lines 31-35 with column 5, lines 19-29 and 47-51). It would have been an expedient to utilize such solvent with the Anderson process & apparatus for the superior extraction properties and lack of environmental concerns with such natural, organic solvent.

Claims 7,8,21,22 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson patent 5,306,351 in view of Bacon-Cochrane et al patent 6,074,549. Anderson does teach to apply heat such as with hot water and heating coils to the hydrocarbon and other sludge material preceding or during extraction and contacting (column 5, lines 59-61). Claims 7,8,21,22 and 29 require the heating to generate temperatures of at least 40 degrees C. Bacon-Cochrane teaches to extract hydrocarbons from oil sand in vessels at temperatures exceeding 65 degrees C (Abstract and column 4, lines 58-66). Such high temperatures would achieve the necessary fluidization and separation forces with the contacting and extracting process steps.

Claims 18, 21, 23, 24 and 63 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson patent 5,306,351, taken alone. Anderson also discloses the sludge being largely or predominantly comprised of hydrocarbons, thus inherently comprised of well over 20 or 50% of hydrocarbons. (column 1, lines 44-52, column 3, lines 17-18 etc.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Toor patent 5,344,255 is of general interest with regard to removing sludge or oil/sand mixture from vessels using pumping, and solvent extraction.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph Drodge at his direct government telephone number of 571-272-1140. The examiner can normally be reached on Monday-Friday from approximately 8:30 AM to 12:30 PM and 2:00 PM to 6:00 PM.

Additionally, the examiner's supervisor, Duane Smith, of Technology Center Unit 1797, can be reached at 571-272-1166.

The formal facsimile phone number, for official, formal communications, for the examining group where this application is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either private PAIR or Public PAIR, and through Private PAIR only for unpublished applications. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have any questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JWD  
5/27/2009  
/Joseph W. Drodge/  
Primary Examiner, Art Unit 1797